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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,133	05/30/2000	Lane W. Lee	M-8377 US	1855

7590

03/13/2003

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EXAMINER

SCHRANTZ, STEPHEN D

ART UNIT

PAPER NUMBER

2177

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/583,133

Applicant(s)

LEE ET AL.

Examiner

Steve Schrantz

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 19, 20 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 19, 20 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 14 January 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau. (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 2177

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on Jan. 14, 2003. These drawings are acceptable.

Specification

2. It is noted that this application appears to claim subject matter disclosed in prior copending Applications found below. An update of the status of the applications found below is required.

“Disk Format for a Storage Device” (Attorney Docket No. 8378 US)

“Defect Management System for a Storage Device” (Attorney Docket No. 8381 US)

“File System Management Embedded in a Storage Device” (Application No. 09/539,841)

“Writeable Medium Access Control Using a Medium Writeable Area” (Attorney Docket No. M-8778 US)

Application No. 09/539,841

Attorney Docket No. 4154-8

Attorney Docket No. 8379 US

A reference to the prior application must be inserted as the first sentence of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e) or 120. See 37 CFR 1.78(a). Also, the current status of all nonprovisional parent applications referenced should be included.

If the application is a utility or plant application filed on or after November 29, 2000, any claim for priority must be made during the pendency of the application and within the later of

Art Unit: 2177

four months from the actual filing date of the application or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2) and (a)(5). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A priority claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed claim for priority under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) a surcharge under 37 CFR 1.17(t), and (2) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Commissioner may require additional information where there is a question whether the delay was unintentional. The petition should be directed to the Office of Petitions, Box DAC, Assistant Commissioner for Patents, Washington, DC 20231.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5-8, 19-20, and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flannagan et al. (U.S. Patent 4,827,462) in view of Ito et al. (U.S. Patent 6,243,340).

Flannagan teaches dependent claim 1 by the following:

Art Unit: 2177

“a writing area formed in a spiral track” at col. 5 lines 13-22;

“writing a plurality of N data files in the writing area, wherein a first data file is written from a first end of the spiral track” at col. 3 lines 49-52. Flannagan teaches that the user data is stored at the first end of the spiral track. At col. 8 line 64 to col. 9 line 4, Flannagan teaches the storage of files in the user data.

“a second data file is written from the end of the first data file on the spiral track, and so on for remaining data files” at col. 3 lines 49-52. Flannagan teaches that the data is contiguously stored. Because the data is stored contiguously, each file will be stored from alongside another file.

“generating a system sector for the data files, wherein the system sector identifies, for each data file, its location in the writeable area and its size” at col. 3 lines 7-11 and col. 12 lines 27-28. At col. 3 lines 7-11, Flannagan teaches that the directory includes first address pointers that point to the locations of files. At Fig. 4 reference 114, Flannagan teaches the storage of file version size. In Fig. 4, Flannagan teaches that the size field is a part of the segment of a directory as taught at col. 9 lines 40-43.

“writing the system sector in the writeable area, wherein the system sector is written from the remaining end of the spiral track” at col. 3 lines 43-49. The directory recording is considered a part of the system sector because of the information that is stored in the directory data as shown at Fig. 4. The directory data is also written from the opposite end of the spiral track from the other data side.

Flannagan does teach that his invention is implemented on a write once optical disk as shown at col. 1 lines 14-17. Flannagan does not actually teach the “erasure” of a non-erasable

Art Unit: 2177

optical disk. Ito does teach the erasure of files on a write once optical disk at col. 3 lines 14-22. Ito teaches that the file management information (directory information) is changed in order to erase the data at col. 6 lines 24-31. It would have been obvious to one ordinarily skilled at the time of the invention to allow the erasure of data on a write once optical disk. By erasing data on a write once optical disk, a user would be able to erase particular data that people should no longer have access. Erasing particular data would force the unfavorable data to be unseen while allowing access to other data.

Flannagan and Ito teaches dependent claims 2 and 20 by the following:

“generating an updated system sector whenever there is a change in the data files stored on the writeable area, wherein the updated system sector identifies the changed data files” at Ito col. 6 lines 24-31. Ito teaches that the system sector (file management information) is updated for each session. The directory of the final session manages the file information of the whole optical disk. “writing the updated system sector in the writeable area, wherein the updated system sector is written from the end of the first system sector on the spiral track” at Flannagan col. 23 lines 41-66. Flannagan teaches that the new directory information is written to the location identified by the find header slot operation that is described at col. 22 line 52 to col. 23 line 3. Because each directory sector is contiguously stored as taught at col. 3 lines 43-49, each sector will be stored next to the previous sector.

Ito teaches dependent claim 5 by the following:

“wherein the change is an indication that a given data file stored in the writeable area is to be considered deleted” at col. 3 lines 14-22.

Flannagan teaches dependent claim 6 by the following:

Art Unit: 2177

“wherein the writable area is contained within an annular area of the optical disk” at Fig. 2 and col. 5 lines 12-18.

“the annular area having an inner diameter and an outer diameter” at col. 5 lines 15-18;

“wherein the first end of the spiral track is adjacent the outer diameter” at col. 3 lines 43-49. The data is stored from the outer diameter in as taught at col. 5 lines 53-56. The user data stores the files as taught at col. 8 line 64 to col. 9 line 4.

“the remaining end of the spiral track is adjacent the inner diameter” at col. 3 lines 49-52. The directory information is stored at the inner radial moving outwards. The directory information contains the file management or system sector as taught at col. 3 lines 7-11.

Flannagan teaches dependent claims 7 and 24 by the following:

“a directory identification parameter that is used to determine when to terminate the process of reading the system sector(s)” at col. 7 lines 11-25 and col. 7 lines 50-62. At col. 7 lines 111-25, Flannagan teaches the use of anchor weights that point to the actual space of the directories so that they can be read. At col. 7 lines 50-62, Flannagan teaches the use of header segments in the directory so that each directory can be easily scanned. By knowing the allocation of the space, the system will know when to terminate the process of reading the sectors.

Flannagan teaches dependent claims 8 and 25 by the following:

“a file identification parameter that is used to determine when to terminate the process of reading the system sector(s)” at col. 10 lines 31-50. Flannagan teaches the use of a filed identifier in each index entry at col. 10 lines 31-32. At col. 10 lines 55-60, Flannagan teaches the storage of a relative sector along with the number of consecutive sectors that a file extent occupies.

Flannagan teaches independent claim 19 by the following:

“a writeable area on the optical disk” at col. 5 lines 13-18;

“wherein the writable area is formed in a spiral track” at col. 5 lines 13-22;

“the spiral track forming a data area starting at a first end of the spiral track and extending towards the remaining end” at col. 3 lines 49-52. Flannagan teaches that the user data is stored at the first end of the spiral track.

“forming a system sector starting at the remaining end and extending towards the first end” at col. 3 lines 43-49. The directory recording is considered a part of the system sector because of the information that is stored in the directory data as shown at Fig. 4. The directory data is also written from the opposite end of the spiral track from the other data side.

“wherein the data area comprises a plurality of data files” at col. 8 line 64 to col. 9 line 4,

“the system sector identifies the location and size of the data files” at col. 3 lines 7-11 and col. 12 lines 27-28. At col. 3 lines 7-11, Flannagan teaches that the directory includes first address pointers that point to the locations of files. At Fig. 4 reference 114, Flannagan teaches the storage of file version size. In Fig. 4, Flannagan teaches that the size field is a part of the segment of a directory as taught at col. 9 lines 40-43.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flannagan et al. (U.S. Patent 4,827,462) in view of Ito et al. (U.S. Patent 6,243,340) as applied to claims above, and further in view of Sakurai (U.S. Patent 5,210,734).

Ito teaches the ability to erase files from a write-once optical disk by changing the file management information at col. 3 lines 14-22. Ito does not teach the ability to add files to the

Art Unit: 2177

optical disk. Flannagan teaches that the data files are contiguously stored at col. 3 lines 49-52.

Flannagan teaches that the data is contiguously stored. Because the data is stored contiguously, each file will be stored from alongside the previous file. Sakurai does teach the ability to add files to the write-once optical disk at col. 2 lines 35-55. Sakurai also teaches the file

management information is updated to allow for the addition of the new files at col. 5 lines 9-19.

It would have been obvious to one ordinarily skilled in the art at the time of the invention to allow the addition of new files to the write-once optical disk. By allowing additional files to be written to the disk, any empty space remaining on the disk can be used for storing other files.

Not only would more information be stored in the empty space, but the additional files can also be added to the write-once storage.

6. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flannagan et al. (U.S. Patent 4,827,462) in view of Ito et al. (U.S. Patent 6,243,340) as applied to claims above, and further in view of Russ (U.S. Patent 5,446,857).

Ito teaches the ability to erase files from a write-once optical disk by changing the file management information at col. 3 lines 14-22. Ito does not teach the ability to modify files on the optical disk. Flannagan teaches that the data files are contiguously stored at col. 3 lines 49-52. Flannagan teaches that the data is contiguously stored. Because the data is stored contiguously, each file will be stored from alongside the previous file. Russ teaches the modification of files on an optical disk at col. 1 lines 52-63. It would have been obvious to one ordinarily skilled in the art at the time of the invention to allow the files stored on the optical disk to be updated. The updating of files allows the most recent version of the file to be stored on the

Art Unit: 2177

optical disk. By changing the file management, the most recent version of the file will be accessed instead of the older file. The storage of updates on a disk allows the user to store information on the disk space that was not previously used.

7. Claims 9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flannagan et al. (U.S. Patent 4,827,462) in view of Ito et al. (U.S. Patent 6,243,340) as applied to claims above, and further in view of Kuen et al. (U.S. Patent 5,754,351).

Ito teaches a recording position for each file in his invention at col. 8 lines 12-18. Ito does not teach a data block number that indicates the next available writeable location for a data file. Kuen does teach the storage of sector locations to allow for writing at col. 1 lines 25-33. It would have been obvious to one ordinarily skilled in the art at the time of the invention to store the data block number in each sector. By storing the data block number, the system will not have to search for the next writeable location. The space available for writing will be known, so the optical disk can proceed to be written.

Response to Arguments

8. Applicant's arguments with respect to claims 1-9, 19-20, and 24-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record in PTO-892 and not relied upon is considered pertinent to applicant's disclosure.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Schrantz whose telephone number is (703) 305-7690. The examiner can normally be reached on Mon-Fri. 8:15-4:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone numbers for the

Art Unit: 2177

organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Steve Schrantz
March 10, 2003


JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100